

CITY OF MUSKEGON

PLAN AND PROFILE OF PROPOSED
WESTERN AVE, FIFTH TO THIRD
PARKING LANE IMPROVEMENTS

PROJECT NUMBER:



SHEET INDEX

| SHEET | DESCRIPTION |
|-------|----------------------|
| 1. | TITLE SHEET |
| 2. | CROSS SECTION & PLAN |
| 3. | TRAFFIC CONTROL PLAN |

STANDARD PLANS

- R-01-G DRAINAGE STRUCTURES
- R-28-J SIDEWALK RAMP AND DETECTABLE WARNING DETAILS
- R-30-G CONCRETE CURB & GUTTER
- R-96-E SOIL EROSION & SEDIMENTATION CONTROL MEASURES

TRAFFIC/SAFETY STANDARD PLANS

- WZD-125-E TEMPORARY TRAFFIC CONTROL DEVICES

UTILITIES

ELECTRIC
JOEL BROWN
CONSUMERS ENERGY
700 E STERNBERG ROAD
NORTON SHORES, MI 49441
(231) 332-2682

TELEPHONE
DAVID B. FLERMOEN
FRONTIER COMMUNICATIONS
860 TERRACE STREET
MUSKEGON MI 49440
(231) 727-1319

NATURAL GAS
VINCENT DUCA
DTE ENERGY
2359 OLTHOFF DRIVE
MUSKEGON MI 49444
(231) 578-0488 (CELL)

CABLE
COMCAST
TBA

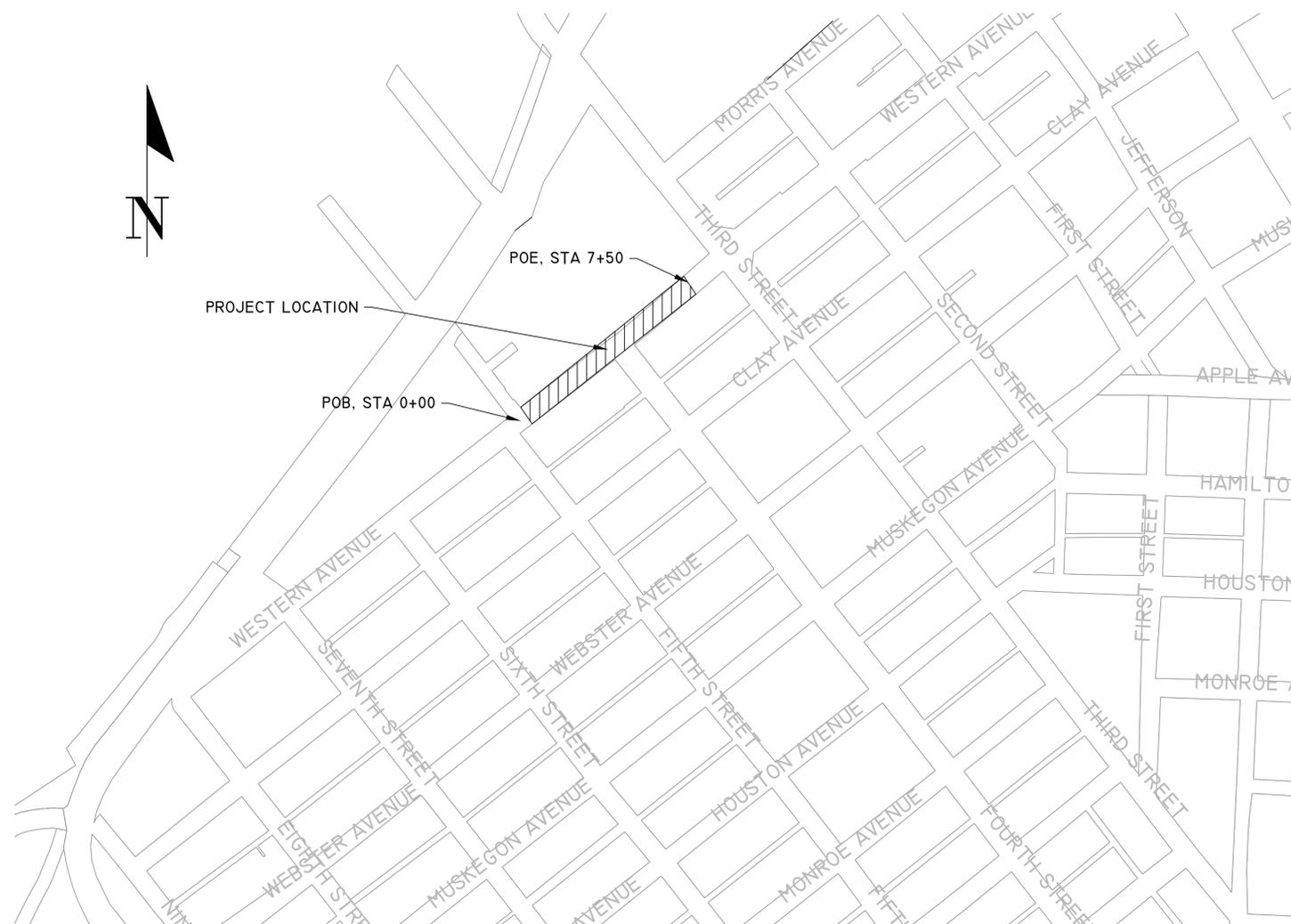
WATER & SEWER
DAVE BAKER
CITY OF MUSKEGON - DPW
1350 E KEATING AVENUE
MUSKEGON MI 49442
(231) 724-4100

NOTE:

THE IMPROVEMENTS COVERED BY THESE PLANS SHALL BE DONE IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION 2020 STANDARD SPECIFICATIONS FOR CONSTRUCTION AND THE 2011 MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. THESE IMPROVEMENTS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE 2018 AASHTO GUIDELINES.

GENERAL NOTES:

1. EXISTING CONDITIONS INCLUDING ELEVATIONS ARE SUBJECT TO CHANGE DUE TO CONSTRUCTION OUTSIDE THE CONTROL OF THE CITY OF MUSKEGON. CONTRACTOR IS TO VERIFY EXISTING CONDITIONS OF THE SITE. MATCH ALL EXISTING MEETS AND COORDINATE WORK ACTIVITIES WITH NEIGHBORING CONTRACTORS.
2. UPON REQUEST AND APPROVAL, THE CONTRACTOR MAY OBTAIN A WATER SUPPLY FROM THE CITY OF MUSKEGON FIRE HYDRANTS AT NO COST, PROVIDED THAT THEY FOLLOW THE CONDITIONS OF THE CITY WATER DEPARTMENT.
3. FOR PROTECTION OF UNDERGROUND UTILITIES, THE CONTRACTOR SHALL CALL MISS DIG, 1-800-482-7171, A MINIMUM OF 3 WORKING DAYS EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS PRIOR TO EXCAVATING IN THE VICINITY OF ALL UTILITY LINES. ALL MISS DIG PARTICIPATING MEMBERS WILL THUS BE NOTIFIED, THIS DOES NOT RELIEVE THE CONTRACTOR THE RESPONSIBILITY OF NOTIFYING OWNERS WHO MAY NOT BE PART OF THE MISS DIG ALERT SYSTEM.
4. PUBLIC UTILITIES OF ALL TYPES HAVE BEEN SHOWN ON THE PLAN USING AVAILABLE INFORMATION, BUT ARE NOT GUARANTEED AS ACCURATE OR THAT UTILITIES OTHER THAN THOSE SHOWN ARE NOT PRESENT.
5. THE CONTRACTOR SHALL SAW CUT ALL MEETS RELATIVE TO SIDEWALK OR PAVEMENT CONSTRUCTION UNLESS WAIVED BY THE ENGINEER. PAYMENT FOR SAW CUTTING SHALL BE INCLUDED IN THE PAYMENT FOR THE PAY ITEMS PAVT, REM, MODIFIED; CURB AND GUTTER, REM, AND/OR SIDEWALK, REM. NO ADDITIONAL PAYMENT WILL ALLOWED FOR SAW CUTTING.
6. THE CONTRACTOR SHALL PREVENT EROSION AND CONTROL SEDIMENTATION ASSOCIATED WITH THE PROJECT. KEEP SEDIMENTATION WITHIN THE RIGHT OF WAY (OR CONSTRUCTION LIMITS) AND OUT OF SURFACE WATERS. CONSTRUCT AND MAINTAIN TEMPORARY EROSION AND SEDIMENTATION CONTROLS, TO INCLUDE INLET PROTECTION, FABRIC DROPS ON ALL INLET STRUCTURES NEW AND EXISTING AND INSTALL TEMPORARY EROSION, SEDIMENTATION CONTROLS AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL REMOVE ON A DAILY BASIS SOIL TRACKED ONTO EXISTING PAVED ROADS. (VACUUM METHODS ARE PREFERRED BUT BROOM SWEEPING IS ACCEPTABLE IF THE MATERIAL IS REMOVED) THE CONTRACTOR SHALL INSPECT ALL SOIL EROSION / SEDIMENTATION CONTROL MEASURES ON A WEEKLY BASIS OR AFTER EACH RAIN FALL EVENT, CLEAN REPAIR, OR REPLACE, AS NECESSARY, TO ENSURE PROPER FUNCTION. ALL SOIL EROSION / SEDIMENTATION CONTROLS SHALL REMAIN UNTIL ALL DISTURBED AREAS ARE STABILIZED. ALL SOIL EROSION / SEDIMENTATION CONTROL, EXCEPT FOR THE EROSION CONTROL, INLET PROTECTION, FABRIC DROP AND SILT FENCE SHALL BE INCLUDED WITH THE PAY ITEM PROJECT CLEAN UP. NO OTHER PAYMENT SHALL BE MADE.



3 WORKING DAYS
EXCLUDING SAT, SUN & HOLIDAYS
BEFORE YOU DIG
CALL MISS DIG

Know what's below.
Call before you dig.

CONSTRUCTION INCLUDES REMOVAL AND REPLACEMENT OF 800 FEET CONCRETE CURB, 8,600 SFT OF CONCRETE SIDEWALK, AND SEVERAL STORM SEWER CATCH BASIN MODIFICATIONS IN THE CITY OF MUSKEGON, MUSKEGON COUNTY.

PREPARED UNDER THE SUPERVISION OF:

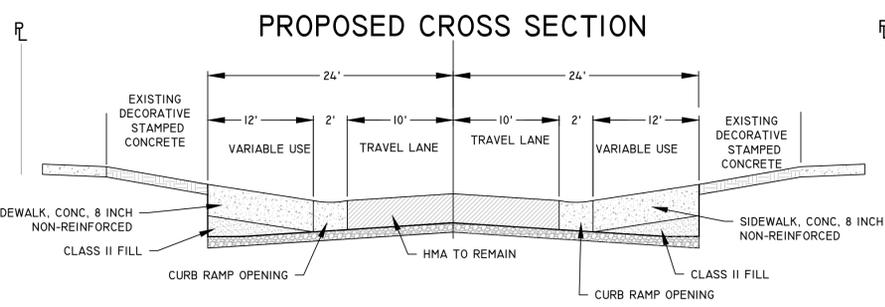
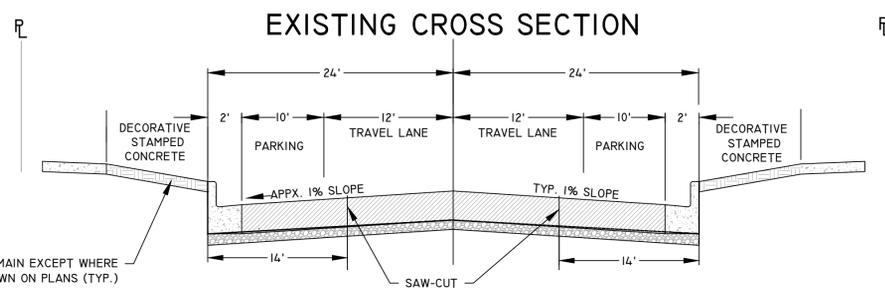
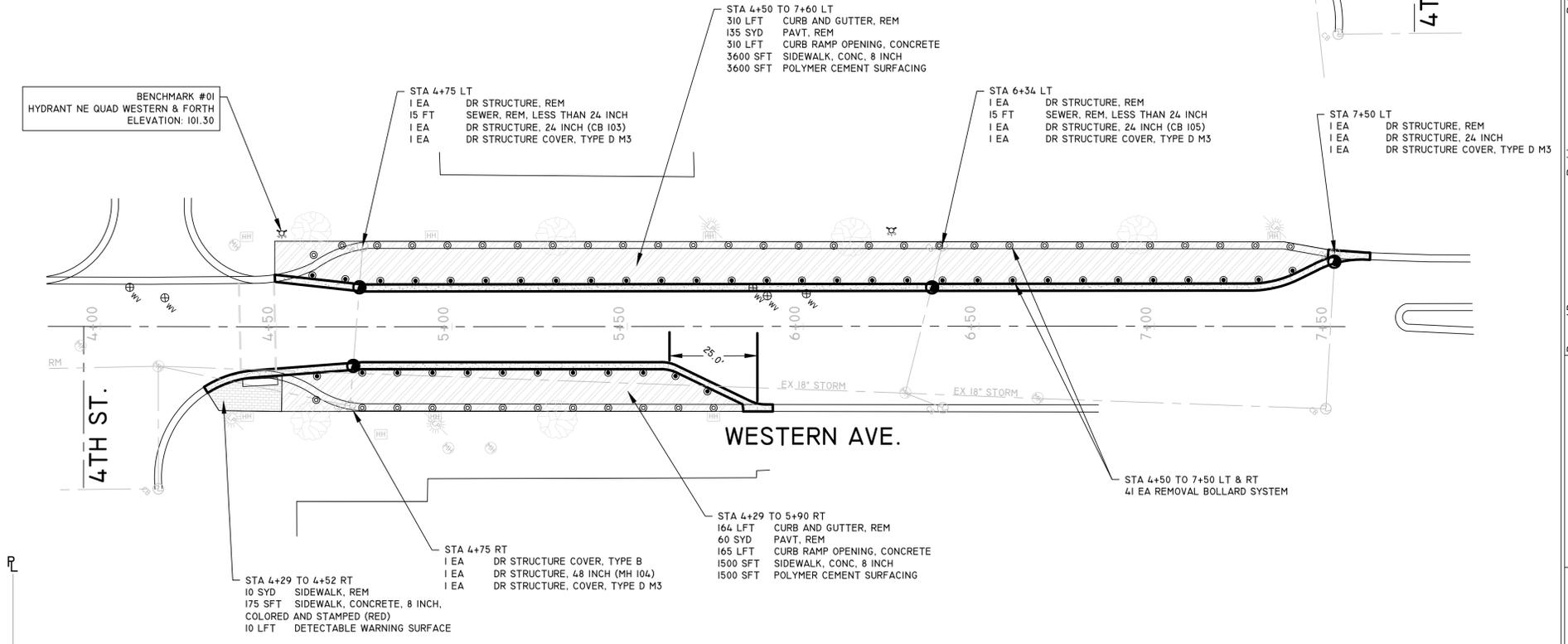
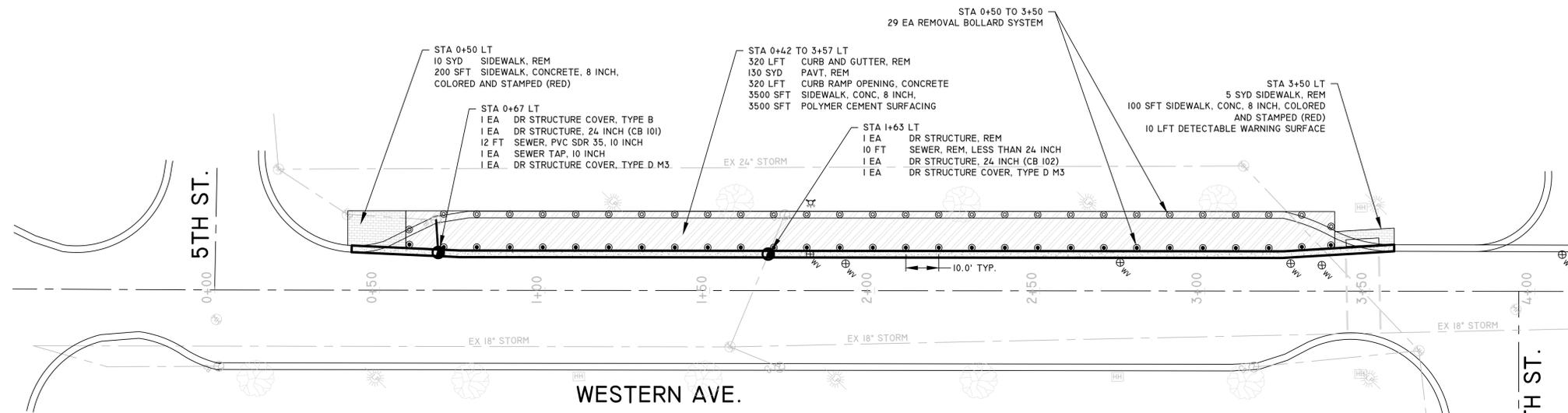
LEO EVANS, P.E.
CITY ENGINEER

CITY OF MUSKEGON
ENGINEERING DEPARTMENT
1350 E KEATING AVE
MUSKEGON MI 49442

55599
REGISTRATION NUMBER

| | | | |
|------------------------------------|----------|--------------------------------|--------------------|
| CITY OF MUSKEGON | | WESTERN SIDEWALK IMPRV. | |
| OFFICE OF THE CITY ENGINEER | | FIFTH TO THIRD | |
| DRAWN J BROOKENS 10/2021 | REVISION | SURVEY FP 09/2021 | PROJECT NO |
| CHECKED | REVISION | AS-BUILT | X |
| APPROVED | REVISION | | SHEET NO. 01 of 03 |

| QUANTITIES THIS SHEET | | |
|--|----------|------|
| DESCRIPTION | QUANTITY | UNIT |
| DR STRUCTURE, REM | 4 | EA |
| SEWER, REM, LESS THAN 24 INCH | 40 | FT |
| CURB AND GUTTER, REM, | 794 | FT |
| PAVT, REM | 325 | SYD |
| SIDWALK, REM | 25 | SYD |
| EMBANKMENT, CIP | 90 | CYD |
| SEWER TAP, 10 INCH | 1 | EA |
| DR STRUCTURE COVER, TYPE B | 2 | EA |
| DR STRUCTURE COVER, TYPE D | 6 | EA |
| DR STRUCTURE, 24 INCH DIA | 5 | EA |
| DR STRUCTURE, 48 INCH DIA | 1 | EA |
| DETECTABLE WARNING SURFACE | 20 | FT |
| CURB RAMP OPENING, CONC | 795 | FT |
| SIDWALK, CONC, 8 INCH | 8600 | SFT |
| SIDWALK, CONC, 8 INCH, COLORED AND STAMPED | 475 | SFT |
| SEWER, PVC SDR 35, 10 INCH, TR DET B | 12 | FT |
| POLYMER CEMENT SURFACING | 8600 | SFT |
| REMOVAL BOLLARD SYSTEM | 70 | EA |



EXISTING DRAINAGE STRUCTURE INFO.

| Structure # | Station - Offset | Rim Elev. | Inverts | Notes |
|-------------|------------------|-----------|---|-----------------------|
| 1 | STA 0+67 LT 21 | 93.68 | 90.98 SW 12" CONC | |
| 2 | STA 1+70 LT 21 | 95.10 | 90.60 SE 12" CONC | REMOVE |
| 3 | STA 1+57 RT 17 | 95.21 | 90.31 NW 12" CONC 89.01 NE/SW 21" CONC | MH |
| 4 | STA 4+75 LT 21 | 99.25 | 95.25 SW 12" CONC | REMOVE |
| 5 | STA 4+75 RT 21 | 99.27 | 95.27 SW 12" CONC | NEW CASTING |
| 6 | STA 6+30 RT 19 | 101.18 | 96.18 N 12" CONC 94.68 NE/SW 18" CONC | |
| 7 | STA 6+38 LT 21 | 100.84 | 96.09 SE 12" CONC | REMOVE |
| 8 | STA 7+50 LT 18 | 101.68 | 97.98 E 12" CONC | REMOVE, 48" STRUCTURE |

PROPOSED DRAINAGE STRUCTURE INFO.

| Structure # | Station - Offset | Rim Elev. | Inverts | Notes |
|-------------|------------------|-----------|--------------------------------------|--------|
| CB 101 | STA 0+67 LT 11 | 93.8 | 91 NW 12" CONC | |
| CB 102 | STA 1+67 LT 11 | 95.22 | 90.5 SE 12" CONC | |
| CB 103 | STA 4+75 LT 11 | 99.37 | 95.26 SE 12" CONC | |
| MH 104 | STA 4+75 RT 11 | 99.39 | 95.26 W 12" CONC 95.26 E 12" CONC | 48" MH |
| CB 105 | STA 6+35 LT 11 | 100.96 | 96.12 SE 12" CONC | |
| CB 106 | STA 7+50 LT 18 | 101.70 | 97.9 SE 12" CONC | |

- NOTES:
- CASTING TYPE D M3 IS TO BE EJ 5100 WITH TYPE M3 GRATE, OR AS APPROVED BY ENGINEER
 - ALL SIGN WORK, INCLUDING REMOVAL, RELOCATION AND INSTALLATION WILL BE DONE BY CITY.

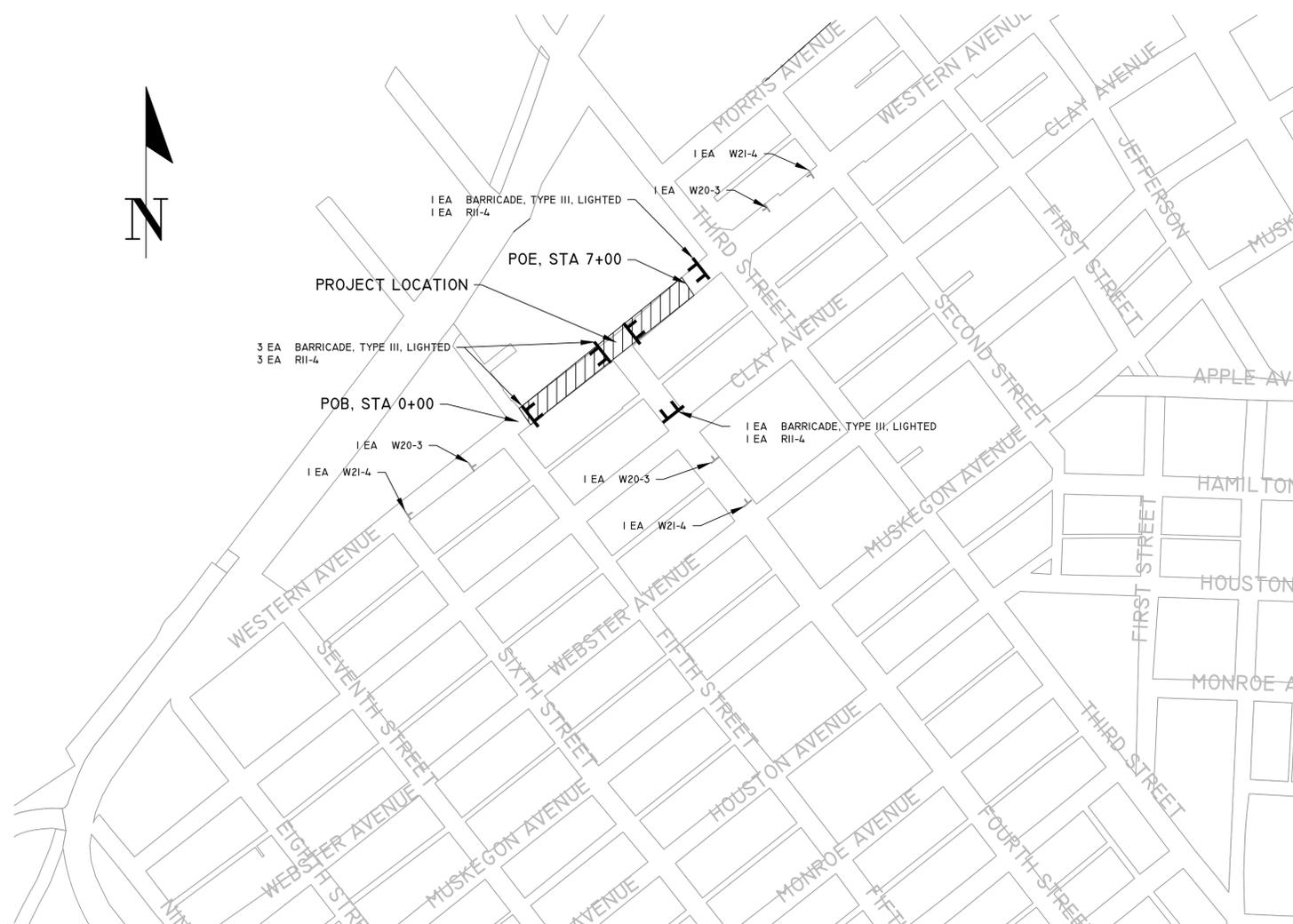
TRAFFIC CONTROL PLAN

TRAFFIC CONTROL NOTES:

1. THE CONTRACTOR SHALL CLOSE WESTERN COMPLETELY, ACCORDING TO THIS TRAFFIC CONTROL PLAN.
2. THE CONTRACTOR SHALL MAINTAIN ACCESS TO BUSINESSES, RESIDENCES, AND CROSS STREETS AS DIRECTED BY THE ENGINEER. CONTRACTOR MAY USE AGGREGATE OR HMA MILLINGS. NO ADDITIONAL PAYMENT WILL BE MADE FOR MAINTAINING TRAFFIC.
3. WESTERN IS THE HEART OF MUSKEGON'S DOWNTOWN. CONTRACTOR CAN EXPECT A LARGE AMOUNT OF PEDESTRIANS WITHIN THE CONSTRUCTION AREA. ENGINEER WILL BE INSPECTING PEDESTRIANS BARRICADES REGULARLY FOR SAFETY.

| PROPOSED QUANTITIES SIGN, TYPE B, TEMPORARY | | | | |
|--|---------------------------------|--------------|---------------|---------------------|
| SIGN | DESCRIPTION | QUANTIT Y | AREA (SFT) | TOTAL AREA (SFT) |
| R11-2 | ROAD CLOSED | 0 | 16 | 0 |
| R11-4 | ROAD CLOSED TO THRU TR | 5 | 16 | 80 |
| W20-3 | ROAD CLOSED AHEAD | 3 | 16 | 48 |
| W21-4 | ROAD WORK AHEAD | 3 | 16 | 48 |
| R3-2 | NO LEFT TURN | 0 | 4 | 0 |
| R3-1 | NO RIGHT TURN | 0 | 4 | 0 |
| R5-1a | WRONG WAY | 0 | 6 | 0 |
| R6-1 RT | ONE WAY (RIGHT) | 0 | 3 | 0 |
| R8-3 | NO PARKING SYMBOL | 0 | 1 | 0 |
| R9-8 | PEDESTRIAN CROSSWALK | 0 | 4.5 | 0 |
| R9-9 | SIDEWALK CLOSED | 4 | 2 | 8 |
| R9-10 | SIDEWALK CLOSED, USE OTHER S | 0 | 3 | 0 |
| R9-11 | SIDEWALK CLOSED, CROSS HERE | 3 | 2 | 6 |
| TOTAL: | | | | 190 |

| QUANTITIES THIS SHEET | | |
|--|----------|------|
| DESCRIPTION | QUANTITY | UNIT |
| MAINTENANCE GRAVEL, LM | 0 | CYD |
| MINOR TRAFFIC CONTROL DEVICES | 1 | LS |
| BARRICADE, TYPE III, HIGH INTENSITY, DOUBLE SIDED, LIGHTED, FURN | 5 | EA |
| BARRICADE, TYPE III, HIGH INTENSITY, DOUBLE SIDED, LIGHTED, OPER | 5 | EA |
| CHANNELIZING DEVICE, 42 INCH, FURN | 0 | EA |
| CHANNELIZING DEVICE, 42 INCH, OPER | 0 | EA |
| PLASTIC DRUM, FLUORESCENT, FURN | 20 | EA |
| PLASTIC DRUM, FLUORESCENT, OPER | 20 | EA |
| SIGN, TYPE B, TEMP, PRISMATIC, FURN | 190 | SFT |
| SIGN, TYPE B, TEMP, PRISMATIC, OPER | 190 | SFT |
| SIGN, TYPE B, TEMP, PRISMATIC, SPECIAL, FURN | 0 | SFT |
| SIGN, TYPE B, TEMP, PRISMATIC, SPECIAL, OPER | 0 | SFT |
| TRAFFIC REGULATOR CONTROL | 0 | LS |
| PEDESTRIAN TYPE II BARRICADE, TEMP | 10 | EA |
| PEDESTRIAN TYPE II CHANNELIZER, TEMP | 800 | FT |
| PEDESTRIAN PATH, TEMP | 0 | FT |
| PEDESTRIAN RAMP, TEMP | 0 | EA |
| PEDESTRIAN BARRIER WITH FENCE, TEMP | 0 | FT |
| BUS STOP, TEMP | 0 | EA |



NOTES:

Date:

Revisions:

Drawn: J.B.
Date: 10/2021

Checked:
Date:

TRAFFIC CONTROL
PLAN

WESTERN SIDEWALK
IMPROVEMENTS

CITY OF MUSKEGON
OFFICE OF THE CITY ENGINEER

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